

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Request by Echodyne Corp. for Waiver of)	WT Docket No. 17-352
Section 2.106 and Sections 87.471 and 87.475)	
of the Commission's Rules)	

FURTHER REPLY COMMENTS OF ECHODYNE CORP.

Echodyne Corp. (Echodyne) submits these further reply comments in the above-captioned proceeding¹ specifically to respond to the comments filed by AT&T Services, Inc. (AT&T).² Because AT&T filed its comments on the reply comment deadline, Echodyne was unable to address the issues raised by AT&T in its own replies.³

AT&T's comments reinforces the views expressed by the other parties in this matter: namely that there is no opposition to Echodyne's request.⁴ AT&T says that it too has no objection to Echodyne's request stating that it foresees only "minimal" interference concerns in the short term from use of the 24.45-24.65 GHz band.⁵ To reduce any long-term coexistence concerns with future adjacent band operations, AT&T recommends that the Commission take the following measures in granting Echodyne's request: "(1) require Echodyne devices to comply

¹ Wireless Telecommunications Bureau Seeks Comment On Echodyne Corporation Request For Waiver To Permit Licensing And Use Of Ground-Based 24.45-24.65 GHz Radar, DA 17-1190, December 11, 2017 (*Public Notice*). *See also*, Request by Echodyne Corp. for Waiver of Section 2.106 and Sections 87.471 and 87.475 of the Commission's Rules (filed Oct. 27, 2017) (*Waiver Request*).

² Comments of AT&T Services, Inc., WT Docket No. 17-352, DA 17-1190 (filed Jan. 25, 2018) (*AT&T Comments*).

³ Reply Comments of Echodyne Corp, WT Docket No 17-352, submitted Jan. 25, 2018.

⁴ *See* Comments of U.S. Border Patrol, WT Docket No. 17-352, DA 17-1190 (filed Dec. 13, 2017); Comments of In-Q-Tel, WT Docket No. 17-352, DA 17-1190 (filed Jan. 9, 2018).

⁵ *AT&T Comments* at 1.

with its Part 87 regulatory framework; (2) authorize ground-based fixed deployments only; (3) authorize use of the 24.45-24.65 GHz band on a secondary basis only; and (4) require a single license for each land station or, if multiple land stations are authorized under a single fleet license, require registration of each land station, with emitter and location information, which will enable future planning around land stations and identification of these stations should interference issues nonetheless arise.”⁶ AT&T’s recommendations appear focused on ensuring that any potential interference issues in the future can be resolved expeditiously.

Echodyne appreciates AT&T’s comments and is pleased to report that it has no fundamental issues or concerns with any of the recommendations. In the *Waiver Request*, Echodyne proposed its own conditions on any waiver that the Commission might grant in this proceeding, namely: (1) stations authorized pursuant to the requested waiver would have secondary status; (2) stations authorized pursuant to these waivers would be granted a full 10-year license term with provisions for renewal (Echodyne would agree to a limited term of 5 years that could be renewed if there are no unresolved instances of harmful interference caused by the MESA-SSR) and the term of the waiver itself would be 10 years; (3) the number of units that could be authorized under the waiver would be limited to a total of 20,000 individual stations/radar units during the first 5 years of the waiver; (4) ground-based stations authorized pursuant to this waiver would be subject to the relevant FCC application and licensing processes; and (5) Echodyne would seek equipment approval for the MESA-SSR under the same technical requirements as for the MESA-DAA.⁷

⁶ *AT&T Comments* at 2.

⁷ *See Waiver Request* at 6-7.

In large part, AT&T's recommendations mirror those that were originally included in the *Waiver Request*. Both sets of recommendations agree to secondary status and site licensing for fixed terrestrial stations. While Echodyne did not specifically limit its requested waiver relief to "fixed" radiolocation operations as did AT&T, it would not object to this limitation being included. Finally, while Echodyne is not entirely sure what AT&T means by Echodyne devices being required to "comply with the Part 87 regulatory framework" as this proceeding is seeking waivers of the rules, Echodyne can confirm that its devices would operate in conformance with all relevant technical specifications detailed in Part 87.⁸

Granting Echodyne's request will serve the public interest by improving public safety through the enhanced protection to life and property while leading to the introduction of technology that is vital to the safe proliferation of commercial unmanned aircraft systems (UAS). Echodyne urges the Commission to expeditiously process and approve this waiver request.

Respectfully Submitted,

/s/ Michael A. Lewis
Michael A. Lewis
Senior Engineering Advisor
DLA Piper, LLP
500 8th Street, NW
Washington, DC 20004

Counsel to Echodyne Corp.

February 7, 2018

⁸ As stated in the *Waiver Request*, Echodyne's devices are low-power radars. With a transmitter output power ranging from 2-4 watts, the radar generates an RF power output up to +26 dBW EIRP. The device will be tested to show compliance with the emissions mask specified in Section 87.139(a) of the Commission's rules, but has been designed to also comply with the more stringent limits of the Radar Spectrum Engineering Criteria A (RSEC-A) mask found in Section 5.5.7.1 of the NTIA's Redbook.